



SARC

The Surrey Amateur Radio Club

**May
2017**

Communicator

HAM RADIO OPERATORS



WHAT MY FRIENDS THINK I DO



WHAT MY WIFE THINKS I DO



WHAT SOCIETY THINKS I DO



WHAT MY KIDS THINK I DO



WHAT I THINK I DO



WHAT I ACTUALLY DO

The Newsletter of the Surrey Amateur Radio Club

May 2017



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At The Last SARC Meeting

General Meeting Minutes

Wednesday, March 8 2017

Stan Williams welcomed everyone to the meeting. 25 members were in attendance as per the sign-in sheet.

Announcements

Stan Williams hosted the meeting and reminded everyone that our June meeting is the AGM.

OTC Report

The Provincial government, via our MLA Marvin Hunt, has made a grant to the Surrey Club. John Brodie moved that the OTC Committee be authorized to spend these funds, seconded by Arthur Siemens, Carried

We will have a work Party April 17th 9:00am to run coax and adjust the fittings on the beam.

The next OTC Meeting is Wednesday, April 19th at 7pm. All equipment we're considering for purchase must be self protecting and remote-able.

Communicator

John Schouten VE7TI Reminded that we're always looking for articles or stories from the club membership and beyond.

Richmond Swap Meet

We were unable to reach VE100VIMMY but we want to give a big thank you to all the

volunteers that helped with the swap meet.

Hyack Festival

<https://www.hyackfestival.com/>

It's coming up and will be held the last Saturday in May

VHF operator volunteers are needed please contact Stan Williams VA7NF for details.

Weekly Net

We are looking for a net manager

Rookie Roundup Contest

It's for new amateurs recently licensed in the last 3 years. It's this weekend April 16th so contact John Brodie or Sheldon Ward if you're interested

Basic Licensing Class

We have 21 students right now and the class is going well.

Financial Report

Scott provided his report and we are sound financially.

Repeater Update

No update

Membership Report

John Brodie VA7XB reports that we have 118 members currently.

Fox Hunt

Anton VE7SSD reports that our annual fox hunt event is May 20th 8:30am - 9:30am for the 80m demo and begins with a staggered start afterwards

We are looking for some help setting up foxes in the AM with Les and Amel.

BBQ \$10 each person let Anton know

Signup sheet being passed around tonight for those that are planning to attend and able to help

Field Day

Field Day Coordinator Sheldon Ward VA7XNL reported that we've had 1 field

day meeting so far and are looking for more volunteers for the pre-planning required.

We are preparing this year for taking part in field day in a park. Two locations are being considered right now.

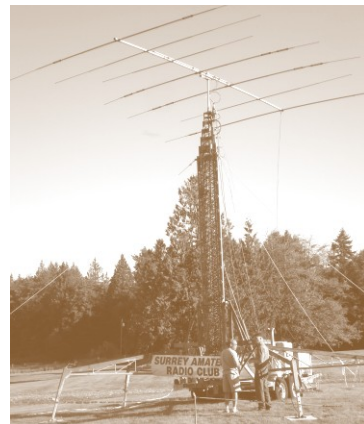
Pros/Cons for each and the decision will be made by the field day committee.

The size of field day will be dependent on the amount of volunteers we have

Presentation

Dave Johnson VE7VR from the Orca DX and Contest Club presented on the joys of DX-ing, making distant contacts. See a review of Dave's presentation on page 4.

~ Jeremy VE7TMY
Secretary



The **SARC Communicator** is published monthly except July and August for members of the Surrey Amateur Radio Club.

To subscribe, unsubscribe or change your address for e-mail delivery of this newsletter, notify [SARCcommunicator @ ve7sar.net](mailto:SARCcommunicator@ve7sar.net)

Non-members living in the Greater Vancouver area are asked to subscribe with a \$5 annual donation towards our Field Day fund.

SARC maintains a website at www.ve7sar.net and a Media website at docs.com/surrey-amateur-radio-club that includes past issues of The Communicator, club history, news, photos, videos and other information.

Kalmar Koffee Klatch Reminder



The SARC Weekly Koffee Klatch is on Saturday at the Kalmar Restaurant at 80th and King George Hwy in Surrey at 9:00 am. Bring your significant other, bring your family, see old friends and have fun.

On The Cover...

Ham radio means something to everyone, but this tongue-in-cheek graphic illustrates how it may be interpreted in different ways. We welcome graduates of our latest SARC Basic Amateur Radio class to the hobby. Welcome, and we hope that you will enjoy your first year of membership on us. Take advantage of our collective experience; now is when you really start to learn about Amateur Radio!



May 2017



At The Last SARC Meeting

Jeremy Morse VE7TMY

The Joys of DX

About Dave

http://orcadxccc.org/tour_ve7vr.html

Our April presenter was Dave Johnson VE7VR, from the Orca DX and Contest Club. Dave was first licensed in 1969 when he was 16 years old. He joined his school's amateur radio club and fell in love with the hobby.

Later in 1972, when his father had an opportunity to work in Botswana, Africa, Dave quickly got on the air and made many contacts from Africa.

Contests are fun and exciting, but DXing is really about gaining as many long distant contacts as possible. Dxpeditons are also a large part in opening up regions for contacts to be made. There are 338 entities possible

and many are extremely remote or uninhabited islands. Alaska and Hawaii are considered their own entities as well.

The level of interest amateurs have for DXing can range from casual to highly-motivated. The ARRL has a DX

Century award for those amateurs that have 100 verified entities. Many spend their entire lives pursuing the remaining 238 entities.

DXpedition is a travel event where many amateur operators visit a remote location to open up the entity for contact for a period of time.

A guide for Dxers and Dxpeditors
<http://www.dxuniversity.com/>

Dave's contest club for BC and the Northwest
<http://orcadxccc.org/>

DX News Feed <http://www.dxcoffee.com/eng/>

DXing and DXpeditons (Ralph Fedor K0IR)
<https://www.youtube.com/watch?v=k4dJcK-WVRw>

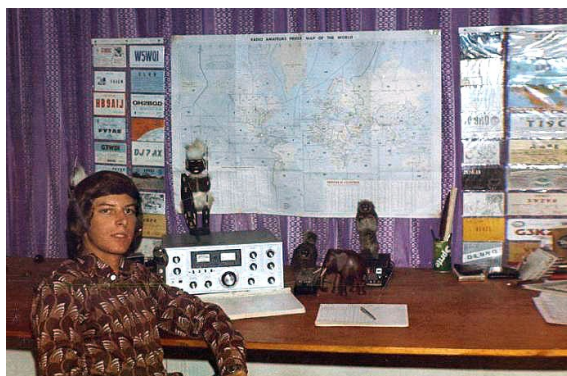
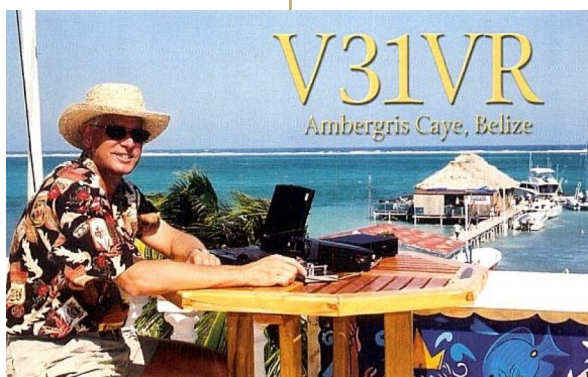
Schedule of major contests
<http://hornucopia.com/contestcal/>

AE4FH 10 year old extra class operator
<https://www.youtube.com/watch?v=MYlsBmH9cqo>

K3LR Super Station Part 1
<https://www.youtube.com/watch?v=wLXu7Q3h8RI>

K3LR Super Station Part 2
<https://www.youtube.com/watch?v=jo2mCNJdvdk>

RSGB Islands on the Air
<https://www.rsgbiota.org/>





NOTICE OF ANNUAL GENERAL MEETING OF SURREY AMATEUR RADIO CLUB

JUNE 14, 2017 AT 7:00 PM
EMERGENCY MANAGEMENT BC OFFICES
14292 Green Timbers Way, Surrey, BC

AGENDA

1. Welcome, call to order and confirmation of quorum
2. Approval of agenda
3. Approval of 2016 AGM minutes
4. Presentation and approval of Annual Financial Statements
5. Announcements
6. Committee reports
7. Other/new business
8. Election of Directors
9. Adjournment

CALL FOR NOMINATIONS

Members elect up to 8 Directors, each serving a 2-year term. Directors in caucus appoint the President, Vice President, Secretary and Treasurer.

Directors whose 1- or 2-year term expires are:

- John Schouten VE7TI
- Scott Hawrelak VE7HA
- Mike Plant VE7AT
- Anton James VE7SSD

Directors continuing for the second year of their 2-year term are:

- Stan Williams VA7NF
- Jeremy Morse VE7TMY
- Bill Gipps VE7XS
- Sheldon Ward VA7XNL

Nominations are currently being sought and will also be taken from the floor.

Only members in good standing may vote at the AGM. This requires that dues be paid for the 2017/2018 fiscal year prior to, or at, the AGM.

May 2017

Club Station News

John Brodie VA7XB

Big Happenings at the OTC!



Those members who attended the last SARC general meeting on April 12th were treated not only to a stimulating talk on DX and contesting by Dave Johnson, President of ORCA Club, but were the first to hear Stan's exciting announcement that SARC has been the recipient of a BC Community grant initiated and supported by SARC's honorary member, Marvin Hunt MLA. Marvin is featured in the "member profile" section of this newsletter but without revealing publicly the amount of the windfall, it is fair to say that the amount is sufficient to pay for the first of what we hope will be three, contest-quality stations to be installed at the OTC. In recent weeks the OTC Committee has been busy considering the best way to spend the money to provide the maximum benefit to the club and its members. The overriding principle established at the outset was that the equipment was to be cutting edge, state-of-the-art gear and, ultimately, be capable of remote operation. During two meetings, with a lot of behind the scenes research and subject to further refinement, the Committee selected the items to be purchased over the next month, i.e. before the end of the current fiscal year (May 31st). There are valid reasons for haste, and with luck we may have some or all of this available by the time of Field Day.

On another front, the OTC Committee has completed two items of much-needed work at the end of the holiday weekend,

Monday April 17th: the first of these tasks was to replace the existing 3 runs of old coax with new, double-shielded LMR-400 between the radio room and the ground panel on the roof for the tri-band beam, the 40-80 off-centre fed and the VHF vertical. Completion of this work was still underway the last weeks of April. Once ferrite cores have been installed on the cables, we expect a significant improvement in the level of RF noise experienced on HF radios in the operations room.

Another important job was to install cable supports on the TH7 antenna to prevent buckling of the boom if it is inadvertently stressed. The team also plans to renew efforts to connect to BC Warn so that full-featured Internet will be available wherever else it is needed at the OTC, as our current connection poses some significant limitations. Other work will be scheduled as weather, time and resources permit.

~ John VA7XB





The OTC Committee meeting

Coastal Ham Radio's Third Annual Repeater Day

Saturday May 6, 2017 (11:00-15:00)

The object behind this exercise is to get the repeaters used to hopefully bring back the glory days, and introduce to new hams that repeaters have a valid reason for their existence beyond nets – To be enjoyed and used!

Nothing could be simpler than this exercise. No paperwork, no submissions, maybe schedule a time, throw out some calls and see if you can raise a fellow ham, who knows maybe you'll make a new friend. It doesn't get any simpler than that.

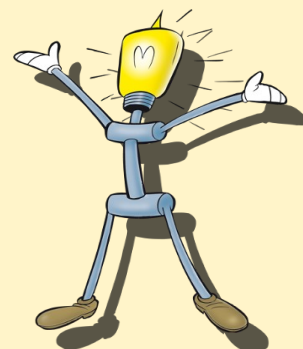
From a club point of view how about scheduling a net that day to see how many members check in to enjoy a QSO? Have a round table discussion. Please discuss it at your meetings and come up with a game plan.

All information can be found at: <https://coastalhamradio.wordpress.com/repeater-day/>

Any questions feel free to email me at: ve7hamradio@outlook.com

~ Gord VE7FKY/VA7GJ

www.coastalhamradio.wordpress.com



May 2017



Club News

What's 'Ham-pening' Around The Lower Mainland?

Surrey Amateur Radio Club Fox Hunt and Barbecue

**Saturday May 20, 2017 at
Crescent Park, South Surrey**

**Pre-Hunt Coaching, Registration & Instructions 0900 - 1000
Foxhunt commences at 1000 with barbeque at 1200**

To participate, you need a 2 m handheld radio with directional antenna. For those who have built kits, an 80 m foxhunt is also planned. However, if you are a beginner or don't have a radio, then come anyhow! You can be part of a more experienced team or we will have equipment that you can use.

Talk-in 147.360+ (110.9 tone)

**FOXHUNT – NO CHARGE;
BARBEQUE \$10**

All are welcome, but we ask that you RSVP Anton James VE7SSD jamesadf77@shaw.ca and indicate if you plan to attend the foxhunt or BBQ or both

To get there, take Crescent Rd. west from King George Blvd near Hwy 99, & turn off at 129th St. to parking & assembly area



*Did you miss the
Richmond Swap
Meet? If so, here is a
[video of that event](#)*

ARDF and Radiosport

I had an opportunity to speak with Amel VA7KBA at the Richmond swap meet. He reports that, after having a great and successful 2016, rolling out their new 80m receivers kits to 50+ people in the Vancouver metro area and beyond, they are back to do more this year.

Some highlights from their 2017 plans:

Les (VA7OM) is working on new 80m receiver which will be almost zero (0) assembling requirements, and more compact than the 2016 one.

Les is also working on providing sets of 5 very inexpensive transmitter kits for 80m. Intention is to offer this set of 5 to clubs interested in ARDF, with proper training and handover.

They are also the official distributor of inexpensive ARDF 80m receivers made in China, plus Les has a quick, small mod that improves the receiving characteristics dramatically.

This year they expect more clubs to organize ARDF events (and are more than happy to assist when and where needed).

Please see the web-site www.ardf.ca for event details and dates.

Amel and Les are also looking into approaching Scouts for ARDF training, so if anyone has any contacts, please send them along. This facet of our hobby has a great potential to popularize ARDF and amateur radio in general.

And there is more, with many things happening and more info to follow. Please check the above website for more details.

Important dates coming up for ARDF

April-8 -> ARDF has a demo table at the RARC Swap meet. Les will be at this meet so feel free to pop in and discuss the above.

May-6 -> NSARC annual ARDF event (80m)

May-20 -> SARC annual ARDF event (80m and 2m)

Should you have any questions, ideas, suggestions, etc, please contact Amel at bcradiosport@gmail.com

Happy ARDF hunting!



2017 Maple Ridge Swap Meet

The Maple Ridge Amateur Radio Club presents the Fraser Valley's largest Ham Radio, Computer and Electronics Swap Meet

Sunday, May 7, 2017 from 9 AM - 12 PM

Click on the map for a detailed version.



Lower Mainland Clubs:

If you have stories, news or events to share, send them along to

communicator@ve7sar.net

May 2017

Radio-Active

John Brodie VA7XB

Profiles of SARC Members



Marvin Hunt
*Honourary
SARC Member*

Marvin Hunt, MLA (Surrey Panorama) A Faithful Friend of SARC

No one remembers exactly when Marvin Hunt, as the official representative of Surrey City Council, first began visiting SARC's Field Day events, but most believe it was around 12-15 years ago. We have had the privilege of visits from other politicians at the municipal, provincial and federal levels over the years, but Marvin was the official who we could count on to show up year-after-year to reinforce his keen interest both in emergency response in general and SARC in particular. In recognition of his faithful devotion to amateur radio, we elected Marvin as an honorary member of SARC in 2008.

When his busy schedule allows, he and his wife Ruth, are often guests at SARC's Christmas party. At such times Marvin can be counted on to give an extemporaneous expression of thanks to SARC for its volunteer efforts in serving the community. In humble response, we often repeat the old adage that being available for emergencies is the duty that legitimizes what we enjoy doing as a hobby, and that's also the kind of commitment which produces winning scores on Field Day.

As you will read elsewhere in the Communicator, Marvin was responsible for

bringing about the generous BC government grant to SARC, to be used for acquisition of a first-class operating station at the OTC. Members will hear more about this in coming months, but steps are already well underway to make it a reality.

Marvin was a member of Surrey City Council from 1987 until 2014, when he moved on to provincial politics, after being elected MLA for Surrey-Panorama in 2013. Since the Legislature was dissolved on April 11th, and due to a shift in electoral boundaries, Marvin is now today's BC Liberal candidate in Surrey-Cloverdale, where he currently lives. Rather than reiterate his political responsibilities and accomplishments, we thought that members would like to hear more about Marvin's personal side.



Marvin Hunt was born and grew up in Edmonton where he completed high school and a year of Engineering at the University of Alberta. After moving to the Vancouver area, he earned a degree in Theology from Pacific Bible College to become an ordained Minister. Although politics has been his primary occupation since the mid-1980s, Marvin still preaches occasionally at Horizon Church in Surrey and performs marriages.

It was in New Westminster that he met his future wife, Ruth, at a Halloween party. Marvin and Ruth have been married for nearly 43 years, raising 6 children who now have 16 children of their own from newborn to 11 years of age. Marvin, Ruth, all the children and grandchildren, all of whom live close-by, get together every few weeks in their large Cloverdale home for family celebrations (it is crowded). In order to fulfill his obligations when the Legislature is sitting, Marvin bought a small fixer-upper condo in Victoria, where he resides together with Ruth - because they like to be together.

Marvin claims a long descent back to the Stuart era of James I in Britain, when his Puritan ancestors fled from England to America around 1620 to escape religious persecution. During the Revolutionary War in the United States, they migrated north to Canada around 1780 as United Empire Loyalists, later moving west to Alberta.

Marvin's grandfather worked for the Canadian National Railway, and his father was a signalman in WWII before becoming a plumber. Marvin speculates that this background, along with his participation in scouts as a youth, may have subtly influenced his interest in amateur radio today. However, his primary interest, other than politics, is sailing. Every summer he and family members can be found cruising the Gulf Islands in his 26 ft. MacGregor

sailboat. During the winter, it is traditional for Marvin and Ruth to escape the cold and wet weather on an organized cruise to the Caribbean or another warm place.

When asked about his proudest achievements in politics, Marvin responded that he enjoys bringing ideas from around the world home for their application to local problems. For example, as the Chair of Metro Vancouver's Waste Management Committee and part of a more general responsibility, he was instrumental in the implementation of Surrey's innovative system, whereby organic waste taken to Port Kells is digested and the methane produced used to fuel Surrey garbage trucks.

SARC is proud to have Marvin Hunt as an honorary member. We appreciate the keen interest Marvin shows in our activities and achievements and we thank him for his contributions to the betterment of amateur radio. We wish Marvin success in the upcoming May 9th provincial election and a continuation of our warm relationship.

~ John VA7XB



May 2017



QRM

...from the Editor's Shack

*Do you have a photo or bit of club news to share?
An Interesting link?*

*Something to sell or something you are looking for?
eMail it to [communicator @ ve7sar.net](mailto:communicator@ve7sar.net) for inclusion in this column.*

New Westminster Hyack International Parade

Saturday, May 27th

To assist you getting to the 'right' person, we have some new contact addresses:

president@ve7sar.net
vicepresident@ve7sar.net
secretary@ve7sar.net
treasurer@ve7sar.net
communicator@ve7sar.net
webmaster@ve7sar.net
repeater@ve7sar.net
membership@ve7sar.net

Operators are required for the parade. No experience is necessary, we can certainly buddy up any brand new hams with an experienced operator. All that is required is a 2-metre handheld (and hopefully a spare battery!) As always, new hams are very welcome.

Operators assigned to the assembly area and parade officials will start communications at 08:00 and those assigned to points along the parade route will start a little later. The event starts at 10:30 with the Vancouver Police Motorcycle Drill Team and the parade follows. We are usually all done by around 13:00.

I am in need of about 25 operators. Assignments will include such things as assembly area, judging, shuttle buses, and police, with various Hyack and

parade officials, the P.A. announcer, dispersal etc.

The parade committee also counts on us for communication at many of the intersections along the parade route and would appreciate any help we can provide with the actual *manning* of the traffic barricades.

Please let me know whether you will be able to help. May 27 seems like a long ways off, but is just over 6 weeks away! I know how much the Hyack Association and the City of New Westminster appreciate our services.

I will of course supply further details as the event draws closer.

Thanks in advance for your help,

~ Ken Clarke VE7BC
ve7uq@rac.ca



Becoming A Vegetarian Is A Big Missed Steak!



Page 13—News You Can Lose

The Lighter Side of Amateur Radio

Will Keep Trying To Join 7.200 Conversations, Ham Says

By [K5KVN](#), on the scene

SPEAKHAVEN, GEORGIA - A local ham radio operator, frustrated with his inability to break through the QRM on 7.200, says he won't give up trying to "have his say in the matter."

Nathan Brinn, who holds a General class license, says he's been trying for weeks to join the cacophony of malicious interference on the frequency.

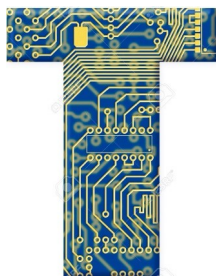
"I want to have my opinion heard, too, but I can't find a millisecond of free space to transmit," he says. "But, I don't want to talk over someone accidentally or block someone from being heard with my long CW keydown. I'm not that kind of guy."

Brinn says he goes to the frequency every day after work and several times on weekend afternoons after returning home from volunteering at the local homeless shelter. "I hope the operators on frequency will start to leave some space for others to join in. Until then, I'll keep trying."

-Ham Hijinks



May 2017



Tech Topics

Hiu Yee VE7YXG

Make Your Own Single-layer Air-core Coil

This article will provide the information and examples to make practical single-layer air-core coils.

Whenever you are working on an RF filter, choke, antenna or an oscillator design, most likely you will need a coil. Under some circumstances, the coil might not be available commercially or may be expensive. If this is the case, you have to make your own. This article will provide the information and examples to make practical single-layer air-core coils.

The well known Wheeler's formula is used to calculate the approximate inductance of a single-layer air-core coil. In 1925, Harold A. Wheeler published his formula as shown below. This is not a theoretical formula but an empirical one and is accurate to 3-4%.

$$L(\mu H) = \frac{d^2 n^2}{18d + 40l}$$

Where:

L: inductance (μH)

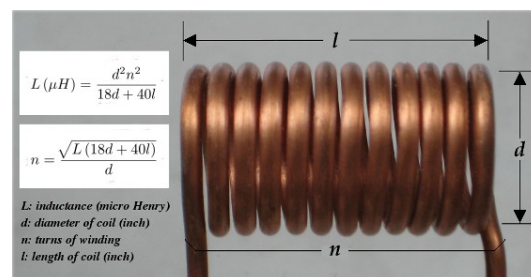
d: diameter of coil (inch)

n: turns of winding

l: length of coil (inch)

For best result by using this formula, the length of the coil (l) should be equal to or greater than 40% (0.4) of the coil diameter

(d). If you study the formula carefully, you will find that the inductance is proportional to the square of the turns. That is, if you want to double the coil's inductance, you don't have to double the turns, you just add 40% more turns to the coil. For example, if you have a coil of $47\mu H$ and the winding has 100 turns, and you want to double the coil's inductance to $94\mu H$, you simply add another 40 turns to it, for a total of 140 turns.



Example 1: What is the inductance of a coil if the coil has 86 turns wound on a 1.25 inch diameter round form, and the coil's length is 1.5 inches? In this case, $d = 1.25$, $l = 1.5$ and $n = 86$.

$$\begin{aligned} L &= \frac{1.25^2 \times 86^2}{(18 \times 1.25) + (40 \times 1.5)} \\ &= \frac{11556.25}{82.5} \\ &= 140.08 \mu H \end{aligned}$$

Since the input data are only good to (at most) 3 significant figures, the result is only good to 3 figures so you would round the answer to 140 μ H. To calculate the number of turns of a single-layer air-core coil for a given value of inductance, re-arrange the formula and it becomes:

$$n = \frac{\sqrt{L(18d + 40l)}}{d}$$

Example 2: To build an AM radio, an inductance of 260 μ H is required. The form on which the coil is to be wound has a diameter of two inches and one inch is chosen to be the length of that coil. Then $d = 2$ inches, $l = 1$ inch and $L = 260$.

$$\begin{aligned} n &= \frac{\sqrt{260[(18 \times 2) + (40 \times 1)]}}{2} \\ &= \frac{140.57}{2} \\ &= 70 \text{ turns} \end{aligned}$$

Since the coil is 1 inch long, the number of turns per inch is $70 / 1 = 70$. Consulting the chart at the end of this article, we find that 28 AWG enameled wire can be used.

To make it easy for you to build your single-layer air-core coil, the author has written a script with PHP to do all the calculations for you. All you have to do is just plug in the desired inductance, the diameter of the coil form, the wire gauge and, if wanted, the operating frequency (for the Q or quality factor of the coil). Then you will be given the number of turns of the coil, the length of the coil and the length of wire needed. Since you know the length of the coil, you just wind the coil tightly to that length, which saves you from having to count the turns. I hate to do the counting because it is tedious and frustrating when you lose count, believe me. You can fool around with the diameter of the coil form and/or the wire gauge to optimize your coil.

I've placed the script on our website. You can try it out from the link below.

<http://www.ve7sar.net/CoilCalculator/CoilCalculator-en.php>

Have fun on winding and I hope this has been useful.

~ Hiu VE7YXG



The above picture shows the final product of the example 2 in this article. The coil is wound with 28 AWG enameled wire on a 2 inch diameter pill bottle. 254 μ H is measured, which is 2.3% less than the target value 260 μ H. This result is more than adequate for most applications.

Enamel Coated Magnetic Wire AWG Size vs Turns per Inch

AWG Size	Turns/Inch	AWG Size	Turns/Inch	AWG Size	Turns/Inch	AWG Size	Turns/Inch
10	9.6	20	29.9	30	91.7	40	285.7
11	10.7	21	33.6	31	103.1	41	322.6
12	12.0	22	37.6	32	113.6	42	357.1
13	13.5	23	42.0	33	128.2	43	400.0
14	15.2	24	46.9	34	142.9	44	454.5
15	17.0	25	52.6	35	161.3	45	526.3
16	19.1	26	58.8	36	178.6	46	588.2
17	21.4	27	65.8	37	200.0		
18	23.9	28	73.5	38	222.2		
19	26.8	29	82.0	39	256.4		

May 2017



Back to Basics

John Schouten VE7TI

From The Basic Question Bank



What amount of transmitter power must radio amateurs use at all times?

B-001-17-01

What amount of transmitter power must radio amateurs use at all times?

- A. The minimum legal power necessary to communicate
- B. 25 watts PEP output
- C. 250 watts PEP output
- D. 2000 watts PEP output

The subject came up recently at our Saturday coffee meeting, so here's the 'bottom line':

An amateur with Basic, Basic with Honours, or the Basic plus 5 w.p.m. Qualification is restricted to a maximum of 250 watts DC input power to the anode or collector circuit of the final RF stage of the transmitter (560 watts PEP output for SSB signals) on all bands.

An amateur with an Amateur Radio Operator Certificate plus the Advanced qualifications is restricted to a maximum 1000 watts DC (2250 watts PEP when using SSB) power input to the anode or collector circuit of the final RF stage of the transmitter on those bands that his/her qualifications allow.

What is DC input power vs PEP? DC input power is the actual power as defined by Ohm's Law, that is $\text{Power} = \text{Voltage} \times \text{Current}$. Typically a radio is powered at 12 volts. If it draws 20 Amperes during

transmit, it would have 12 x 20 or 240 Watts of DC input power.

In contrast, PEP is instantaneous power at the transmitter output (antenna). Typically PEP is higher than the DC input power.

In any event, you should be using the minimum legal power necessary, so 'A' above is the correct answer.

Some other power related questions...

B-001-17-02

What is the most FM transmitter power a holder of only Basic Qualification may use on 147 MHz?

- 1000 watts DC input
- 200 watts PEP output
- 250 W DC input**
- 25 watts PEP output

B-001-17-04

What is the maximum transmitting output power an amateur station may use on 3750 kHz, if the operator has Basic and 5 w.p.m. qualifications?

- 1000 watts PEP output for SSB operation
- 1500 watts PEP output for SSB operation
- 2000 watts PEP output for SSB operation
- 560 watts PEP output for SSB operation**

B-001-17-05

What is the maximum transmitting power an amateur station may use for SSB operation on 7055 kHz, if the operator has Basic and 12 w.p.m. qualifications?

1000 watts PEP output

560 watts PEP output

2000 watts PEP output

200 watts PEP output

B-001-17-07

The maximum DC input to the final stage of an amateur transmitter, when the operator is the holder of both the Basic and Advanced qualifications, is:

250 watts

1000 watts

1500 watts

500 watts

B-001-17-08

The operator of an amateur station, who is the holder of a Basic Qualification, shall ensure that the station power, when expressed as RF output power measured across an impedance matched load, does not exceed:

2500 watts peak power

1000 watts carrier power for transmitters producing other emissions

560 watts peak-envelope power, for transmitters producing any type of single sideband emission

150 watts peak power

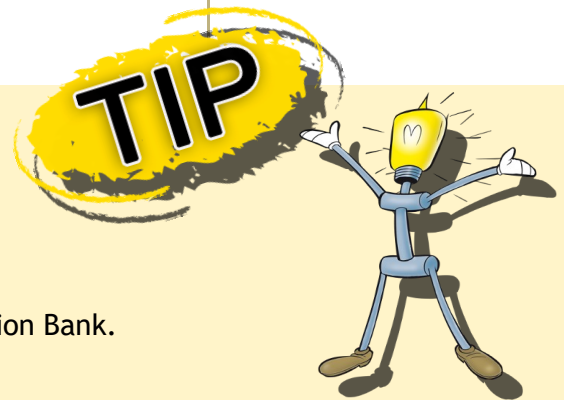
~ John VE7TI

*Our next SARC Basic
Licensing Course
starts Tuesday,
September 5th*

Study Links

Whether you are new to the hobby or brushing up on skills, you may find these study links helpful:

1. RIC-7 is the entire up-to-date Industry Canada (IC) Basic Question Bank.
<http://tinyurl.com/CanadaBasicQB>
2. There is a RIC-7 that has some explanations along with the questions. You may wish to review it as [RIC-7 2014rev08.05 with explanations](#).
3. The Amateur Radio Exam Generator is at:
https://www.ic.gc.ca/eic/site/025.nsf/eng/h_00040.html
4. The ExHaminer Study software for Windows is at: <https://wp.rac.ca/exhaminer-v2-5/>
5. The Ham Study website has a flash card approach to learning the Question Bank, both Basic and Advanced. It is at: <https://hamstudy.org>



May 2017



The SEPAR Report

Roger Andrews VA7VH

Malicious Interference



...most of our problems had to do with passing NTS messages on simplex.

On Saturday April 22 SEPARS conducted an exercise. The scenario was that an major incident has occurred, normal communications are non-functional and SEPAR has been activated to help with communications. Since there were not enough volunteers to do a full scale exercise and man all the Grab & Go kits and the Emergency Operations Centre (EOC), it was decide that we would need to pretend a little bit. Stations, even though they were at home or mobile, would take the role of an actual location such as the EOC, City Hall or the Guilford Recreation Centre and so on. VE7VTA (Ron) did actually man the real EOC at Firehall #1, but that was the only "real" location. SEPARS members had an opportunity to act in some of the different roles. Moving from one location to another was instantaneous, since their location was in fact make believe. In a full scale exercise we couldn't have moved people into new roles this quickly and that made this form of exercise a positive experience because it allowed it to be compressed in time. I would

like to see a full scale deployment in the future, however.

At the time of writing this piece, we have not had our exercise debriefing, so any conclusions I make are my own only. From my point of view, most of our problems had to do with passing NTS messages on simplex. This seemed to be a day that had exceptionally bad atmospheric conditions for VHF. Normally I have some problems contacting others on simplex from my area. However, even the people that I normally get a strong signal from, were absolutely unreadable, and others that rarely seem to have problems in the past, with each other, had them this day. We adapted by using the same frequency as net control (the SARC repeater on 147.360). That did slow us down a bit, since Net Control loses the ability to communicate when message traffic is being passed on the Net Control frequency. During the 2 hour exercise there was only one issue with QRM.

I'm talking about the type of QRM expertly crafted by another human being to hurt a fellow persons feelings. The number of people that have a radio, but don't have the financial ability to seek mental health treatment astounds me. There is always one, and one is just too many. Some of these people enjoy meowing like a cat or burping (like they do frequently on VE7RPT). This time the "interference was directed at a persons feelings. Not one to shy away from a



Surrey Emergency Program Amateur Radio

dispute, if I was 100% sure of this persons callsign I would happily publish it here. As it is, I know the voice, and I'm only "pretty" sure who it was. That's just not good enough to openly accuse someone.

During this incident the person acting as Net Control asked a station to repeat their callsign. The offensive QRMer broke in and asked, without giving a callsign, "Is this some kind of exercise?" Net control answered "Yes" with a brief explanation, and then Net Control continued by asking for the initial stations callsign. The QRMer broke in again and said "VE7*** dummy", suggesting that because he heard their callsign, Net Control should have also heard it, and since they didn't, they must somehow be deficient. Now I know that some of you are thinking that the Net Controller should not have answered the person that had not identified themselves. You are correct from a strictly legal point of view, but in the moment, I think it's a natural response to give an answer. It wouldn't have mattered if the Net Controller ignored this station and in fact, overlooking him, might have made things worse. I was impressed that no-one engaged the jerk, and it took everything in my power to not engage him myself. I have to give myself a pat on the back for holding it together because I was livid! I don't know if the Net Controller noticed the rude comment. I'm pretty sure they would have. It was not a comment that in anyway reflected the Net Controllers' ability at the time, so if that Net Controller is reading this, please don't think you did anything to deserve that sort of vulgar and egregiously bad behaviour.

I know this is supposed to be a SEPARS report, and not a rant about people without the introspection to know when they need psychological help, so I'll end on the following note. This was all in all a good exercise, I enjoyed it, but it would have been more fun with more participants and one less escaped Tourettes syndrome patient!

A reminder that Every **Tuesday evening at 1930 hrs (7:30pm PDT)** we start a ½ hour NET on the local repeater provided by the Surrey Amateur Radio Club (SARC) on 147.360 MHz +600kHz and a tone of 110.9. There may be a simplex test or a test NTS message transmitted during the NET at the Net controllers discretion. NTS Radiograms can be found on the SEPAR website here, or, if you would like a fill able PDF that you can enter on your computer, you can get it from here.

Thursday nights at 19:30 hours, we only provide Simplex operations starting on frequency 146.550 and changing frequencies and bands for further signal checking. During these tests, we encourage those with mobile or hand held capabilities to try different locations each time to become more knowledgeable as to what to expect in a real disaster. We are unable to predict where we will be located when we are needed.

Additional training sessions and practice exercises are scheduled throughout the year including participation with other departments and agencies.

73

~ Roger VA7VH
SEPAR Secretary



*...training sessions
and practice
exercises are
scheduled
throughout the
year*



IMPORTANT

SEPARS Annual General Meeting

Thursday, May 25, 2017, 7:00pm to 9:00pm

Training Facility at the #9 Fire Hall

14901 64 Ave, Surrey, BC V3S 1X8 [\[Map\]](#)

May 2017



Adam's Tech Topics

Adam Foley N1RKW

All About Diodes



A silicon diode is made from a chip of silicon that has been "doped" or chemically modified.

Although Adam has 'retired' from his monthly column, he has allowed us to publish some of his earlier installments.

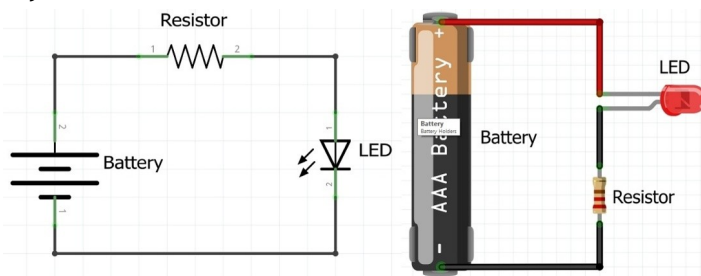
At some point during the July CNHARC monthly meeting, I lost all of my common sense and volunteered to write a monthly column for the Communicator.

Why would I do such a thing?

Then it occurred to me: As a retired guy with diverse interests, I spend a lot of time learning about electronics, amateur radio, computers, and any number of other things that might just be interesting to other people. Why not share some of the stuff I run across, particularly the things that pertain to ham radio?

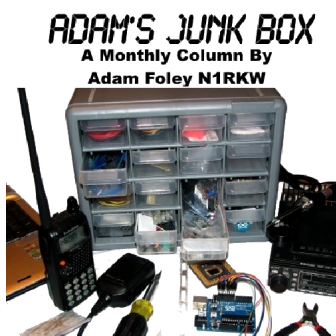
I've got ideas for this column ranging from a cheap and simple homebrew J-Pole antenna that works better than you'd think, to a simple mod to the Signalink USB that can drop the noise floor an astonishing 40 dB! However, I'd like to start with a series on some electronics fundamentals. I'm no genius, but I do know my way around a circuit diagram. I'm sure we've all seen those funny little symbols with lines going every which way, all of which is supposed to tell us just how the

recently deceased rig on the workbench used to work. A circuit diagram is a roadmap of the electronic components in a given device. Here is a simple one I created:



The circuit diagram is on the left side of the image, and an approximation of what this circuit would look like in real life is shown on the right side. The circuit pictured here would do nothing more than light an LED, using a battery pack as a source of power and a resistor to limit current to prevent the LED from going up in smoke.

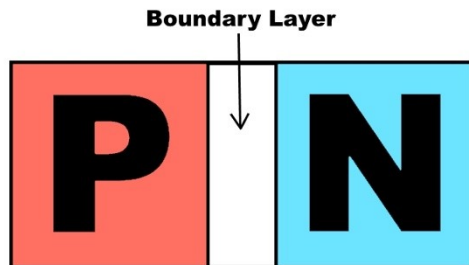
Okay, so what is an LED anyway? In this day and age where incandescent bulbs are considered to be the worst thing since chemical warfare, LEDs are becoming increasingly present in the lives of everyday folks. That still doesn't answer the question, but this does: LED stands for Light Emitting Diode. Okay, it's a diode that produces light. A diode...



So just what the heck is a diode???

Quite simply it is an electronic component that allows current to flow in only one direction. It's also the most basic component in most radio receivers. In fact, you can build a simple radio receiver using nothing more than a diode and some wire! Don't expect it to outperform your fancy new HF rig, though.

How it works is a bit more complex, but I will attempt to explain it. Let's use a common silicon diode as our example: A silicon diode is made from a chip of silicon that has been "doped" or chemically modified. One side of the chip is doped with one chemical, and the other side gets treated with a different chemical. There are a great many different chemicals used for this, depending on what application the specific diode is designed for. A small undoped area is left between them, making a device with two different regions and a small boundary layer (often called the "depletion zone") in between them.



These two regions are called "P" and "N", which are short for "Positive" and "Negative". The N region has an excess of electrons, and the P region has a deficiency. The two opposite charges will always attempt to equalize but cannot do so because of the boundary layer in between them. When enough energy is

applied to the N region, typically about 0.7 volts for the silicon diode we are using as our example, the charge builds up, begins to break down the boundary layer, and flow across to the P side and out to the rest of the circuit. As long as this is happening and the voltage stays above 0.7v, the diode will continue to conduct.

So the diode is conducting electricity at this point, so what? A chunk of wire will do the same thing, right? Yes and no. A chunk of wire will definitely conduct electricity, but it will do so in both directions. As I mentioned earlier, the diode only conducts electricity in one direction.

We know that a diode will conduct when a voltage is applied to the N region. But what happens when that same voltage is applied to the P region? In a nutshell, nothing. Scientifically speaking, there is actually something happening: the P region is resisting the flow of electricity toward the N region, so current does not flow in this direction.

Why not?

Think of it as being similar to a magnet. If you bring two magnets together, they will attract each other if you hold them opposite pole to opposite pole, or north pole to south pole. They will repel each other if you hold like pole to like pole, either south to south or north to north. Feel free to try this out. Electricity and magnetism are both parts of the same force, the electromagnetic force. So they act similarly in most cases. If you have two P charges, they will repel each other and current won't flow. The same is true with two N charges.

What makes one charge N and the other P, or negative and positive? As I mentioned earlier, a negatively charged object has an

May 2017

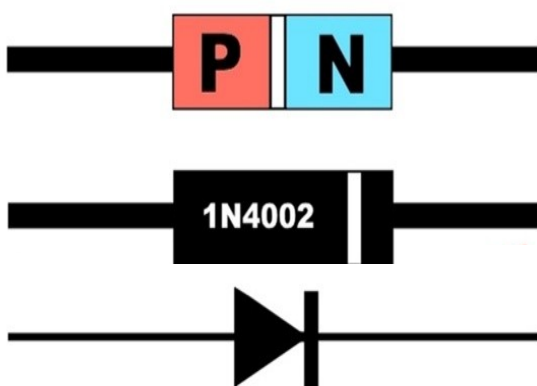


...why has amateur radio been so well protected over the years?

excess of electrons. A positively charged object has a deficiency. Think of a humble battery. You know that it has a + side (positive) and a - side (negative). What you might not be aware of is that current actually flows from the negative side of the battery to the positive side! So it is the negative side that has an excess of electrons, which then flow, though whatever circuit the battery is attached to, to the positive side of the battery.

If we were to install a diode backwards, or reversed, with the N region connected to the + side of the battery and the P region connected to the - side, the like charges repel each other, and cannot break down the boundary layer. The diode will not conduct, for the same reason 2 magnets will not stick together if you place them north pole to north pole.

The three diodes shown in this illustration are all oriented the same way:



Since the diode will only conduct from N to P, that is, in only one direction, it is incredibly useful for a myriad of applications ranging from rectifying AC

(alternating) current to DC (direct) current, detecting radio signals, controlling electronics and computers, illumination (there's that LED again), and a host of other uses too numerous to mention. Diodes have become so ubiquitous that most people who use them have no idea that they are doing so!

There are many different types of diodes, here are a few that you may run across:

The silicon rectifier diode discussed above

The LED, which can produce light very efficiently but is a poor rectifier

The Zener diode, which will only resist reverse current up to a specific voltage

The Schottky diode, which require less voltage to work and are quite fast at switching

The Germanium Diode, which is often seen in radio applications

And many others.

So that's a diode in a nutshell. Put voltage on one side of a diode and it will let it flow. Put voltage on the other side and it won't.

~ Adam Foley N1RKW
Reprinted with permission

Guest Columnist Adam Foley N1RKW is a member of the Central New Hampshire Amateur Radio Club and contributes a monthly column "Adam's Junk Box" to their newsletter, also called *The Communicator*.

Adam also has a [YouTube Channel](#)



The Contest Contender

Russian Digital Activity Days

Russian Digital Radio Club

Digital Activity Days "01-10" are held annually in January and May during the following periods:

- from 00:00 UTC on January, 1st till 23:59 UTC on January, 10th;
- from 00:00 UTC on May, 1st till 23:59 UTC on May, 10th.

The contacts made by the following 16 digital modes are accepted:

- 1) CONTESTIA, 2) DOMINO, 3) HELL,
- 4) T65, 5) JT9, 6) JT10, 7) MFSK, 8) MT63,
- 9) OLIVIA, 10) PSK, 11) ROS, 12) RTTY,
- 13) SIM-PSK, 14) SSTV, 15) THOR,
- 16) THROB.

We recommend to use a multi-mode program such as MultiPSK, MixW, Flgidi and others, as well as programs for some Digi modes. For JT10 (as well as in JT65 and JT9) it is recommended to use the JTDX program.

Many programs you can download from our club website in the "Archive of programs for radio digital modes"

Diplomas in electronic form will be rewarded to all participants of Digital Activity Days who work at least 5 digital modes with 10 QSOs (SWL) in each of them. The diplomas will be awarded annually in May to all those who take part in any of the periods or days during both periods of activity.

"01-10" RULES:

<https://www.rdrclub.ru/dni-aktivnosti-rtsrk/244-digital-activity-days-rdrc-rules>

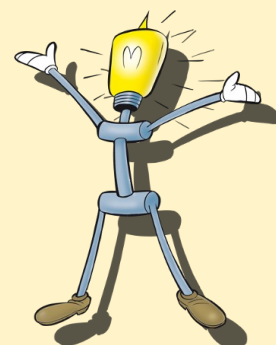
We wish you great success and enjoyable participation in our activity days!



Decibel Hell—The Reign Of Antenna Gain Pain

There's a great article about decibels and how this relates to antenna gain: Decibel hell - the reign of antenna gain pain - A short history of antenna gain terminology and some guidance to muddle your way through some of the nefarious alternative facts you may encounter. [Read it here](#)

~North Shore ARC



May 2017



The Rest Of The Story...

QRM Or The First Radio 'Hack'?



Guglielmo Marconi

To Hack - is to cut with rough / heavy blows or to gain unauthorized access to data in a system or computer. For most people 'Hacking' automatically generates a negative response, a modern phenomenon that usually includes celebrities, banking or email

data but actually as long as there have been developments in technology there have been people around to test for weaknesses or come up with improvements. It was seen as a duty of care in order to not let the public be fooled.

The first public display of hacking took place as far back as 1903 at the Royal Institution. An afternoon lecture was about to start. It was due to be presented by a young physicist, John Ambrose Fleming and was to feature a demonstration of a new technology of the age: a long-range wireless communication system pioneered by the Italian radio engineer Guglielmo Marconi. The lecture was to include Fleming receiving a message sent by Marconi from his station in Cornwall. The aim was to showcase publicly for the first time that Morse code messages could be sent wirelessly over long distances and more importantly securely. Not all went to plan however.

Marconi was immensely proud of his wireless system. He dreamed of its contribution to the betterment of mankind, but as a shrewd businessman he also knew of his inventions value in financial terms and the promise of security could only add to this. He boasted to all who would listen in the St

James Gazette February 1903 "I can tune my instruments so that no other that is not similarly tuned can tap my messages". The financial bounty that Marconi was set to earn would certainly come at the cost of the existing wired telegraph companies who had sunk millions into land and sea cabling in order allow messages to be sent around the world. As Marconi began to patent parts of his system these telegraph companies realised that their long-term investments maybe for nothing if a secure wireless technology had been created. One communication company decided to act and took the opportunity to employ a young telegraph enthusiast to test Marconi's new unbreakable wireless system.

Neville Maskelyne was a British music hall magician who had already undertaken some telegraph experiments. He was keen to see whether Marconi's system was truly as groundbreaking as he claimed. The Eastern Telegraph Company's tasked Maskelyne, to set about the business of breaking into the secure communications. He started his task by building a 50 meter radio mast on the cliffs of Porthcurno to see if he could intercept Marconi's company messages being sent to vessels at sea. He succeeded quite easily and soon realized that



Neville Maskelyne

without tuned equipment it was relatively easy to intercept a signal without anyone knowing.

A few months later back at the Ri, an expectant audience was waiting for the young Fleming to organize his equipment in the lecture theatre, when the apparatus suddenly began to tap out a message. To the audience it sounded just like a rhythmic tapping noise but to Fleming and his assistant it was a clear message and not the one they were expecting. At first the message spelled out just one word repeated over and over 'Rats, Rats, Rats'. Then it changed to a poem accusing Marconi of "diddling the public" - there was a young fellow of Italy, who diddled the public quiet prettily (further lines followed). It was obvious to the lecturer that the demonstration had been hacked.

The obscure message that had mysteriously arrived suddenly stopped shortly before Marconi's signal from Cornwall arrived, however the damage was done. If someone could interrupt the inventor of the apparatus while he was showcasing it to the public then no message could be safe. Fleming was incensed at the intrusion on his friends breakthrough and wrote a strongly worded letter to the Times calling the act of hacking 'scientific hooliganism'. Desperate to know how and what had happened Fleming appealed to the Times readers to unmask the culprit responsible. This proved to be an unnecessary task as Maskelyne was quite happy to reveal his part in his own letter to the Times four days later, justifying his act on the grounds that the public needed to know that there were flaws to this secure system.

His plan worked. Maskelyne's signals were picked up by the receiver, decoded and noted by Fleming, who wrote to the Times complaining of "Scientific Hooliganism". A slew of letters to and fro in the Times followed, where Maskelyne and Fleming argued over if the interference was caused by Maskelyne or other phenomena, such as ground loops or the electrical lighting in the theater.

In the end, it was discovered that the receiver that Fleming had been using was not, in the phrasing of the time, syntonized. It wasn't tuned to a specific frequency, excluding all others, because a syntonized receiver would have been too large to use in the demo. In effect, Marconi was being at least a little deceptive. Maskelyne

ended his account with the Latin phrase "Qui vult decipi, decipatur", a legal phrase that translates as "Let him be deceived who wishes to be deceived."

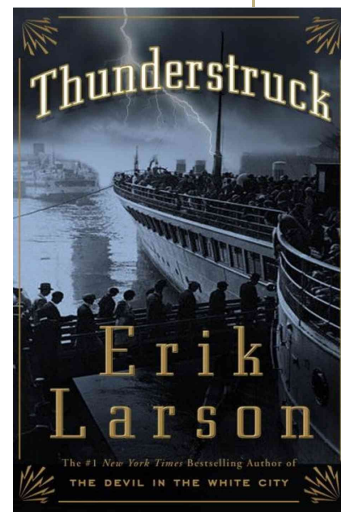
In the end, the hack did little to dent Marconi's reputation. Just the year before, he had sent the first wireless signal across the Atlantic and started a commercial transatlantic service a few years later in 1907. That same year he was awarded the Nobel Prize with Karl Ferdinand Braun "in recognition of their contributions to the development of wireless telegraphy". When he died in 1937, the BBC observed two minutes of silence in respect, and asked all radio transmitters to do the same.

What the hack did, however, was to reframe the discussion on wireless security. Rather than accept Marconi's assertion that these signals were secure and could not be interfered with, researchers afterward started looking into ways that these could be monitored, jammed and otherwise manipulated. The ease with which Maskelyne could monitor the signals was also an eye-opener for governments and led to the development of wireless encryption systems that were used in World War I, II and beyond.

Nevil Maskelyne died in 1924, and is best known for his other career as a magician. He wrote "Our Magic: the art in magic, the theory in magic, the practice in magic", a magic textbook that is still in use. His son Jasper Maskelyne applied these magical skills in World War II, where he was involved in the development of the fake munitions, tanks, and other trickery that helped mislead the Nazis in the lead up to D-Day, and taught soldiers how to hide escape tools in everyday items.

If you want to read more about this fascinating period in the history of technology, *Thunderstruck* by Erik Larson is a great place to start. It details the history of radio by discussing the life of Marconi and how his invention helped to catch the notorious murderer, Dr Crippen.

...Now you know!



SARC Members

Notice of Proposed Bylaw Changes

The need for Bylaw changes has been prompted by the requirements of the Community Gaming Grants Branch who, in their denial of our 2016 gaming grant application, advised that a future application will be considered only if the distinction between “full” member and “associate” member is amended to allow both classes of member to serve on the Executive Committee, so as not to limit “inclusiveness” of our organization.

Because we do wish to qualify for future gaming grants, a sub-committee was set up by the Executive to consider the scope of changes and make recommendations, which are summarized below; the changes effectively change two categories of membership, i.e. from “full member” to “licensed member” and from “associate member” to “non-licensed member” and allow both types of members to have identical privileges.

Currently Reads	Proposed Amendment
1.b. Full Member Open to persons who hold a certificate of proficiency in radio in the Amateur Experimental Service. A Full Member shall pay dues and have one vote.	1.b. Licensed Member Open to persons who hold a certificate of proficiency in radio in the Amateur Experimental Service. A Licensed Member shall pay dues and have one vote.
1. d. Associate Member An Associate Member may be any person who wishes to participate in the Club activities. An Associate Member cannot be a member of the Executive Committee. An Associate Member can be the head of a group committee or a member of a group committee. An Associate Member shall pay dues and shall have one vote.	1.d. Non-Licensed Member A Non-Licensed member may be any person who wishes to participate in the Club activities but does not hold a certificate of Proficiency in radio in the Amateur Experimental Service. A Non-Licensed Member shall pay dues and shall have one vote.
3.a. For a Full or Associate Member: When a member ceases to be in good standing. All members are in good standing except a member who has failed to pay his current annual membership fee or other subscription of debt due and owing by him to the Club within a period of three months or by submitting a letter of resignation	3.a. For a Licensed or Non-Licensed Member: When a member ceases to be in good standing. All members are in good standing except a member who has failed to pay his current annual membership fee or other subscription of debt due and owing by him to the Club within a period of three months or by submitting a letter of resignation.
5.b. Directors shall be Full or Life members of the Club.	5.b. Directors shall be Licensed, Non-Licensed or Life members of the Club.
6.e. All Full Members, Associate Members in good standing and Life Members shall be eligible to vote.	6.e. All Licensed Members, Non-Licensed Members in good standing and Life Members shall be eligible to vote.

A motion will be made at the June 14, 2017 Annual General Meeting to amend the Bylaws of the Association in the manner described above.

The committee wishes to point out that, while deemed a critical item in terms of qualification for receiving gaming grants, the proposed changes are considered as strictly academic because SARC has not had (at least in the last 20 years) any “associate members” because persons who have an interest in amateur radio invariably will become licensed.

May 2017

Sun	Mon	Tue	Wed	Thu	Fri	Sat
<p>For details on all SARC events, go to ve7sar.net</p> <p>For details on all SEPARS events, go to separ.shutterfly.com/calendar</p>				4 1930 SEPAR Simplex Check-in	5	6 0900 Klub Koffee Klatch: Kalmar Family Restaurant, King George Blvd & 81 st Ave. CONTEST: New England QSO Party Ham Radio Repeater Day (see pg 7)
7 Maple Ridge ARC Swap Meet CONTEST: New England QSO Party (all mode)	8	9 1930 SEPAR Net 2000 SARC Net	10 1900 SARC General Meeting	11 1930 SEPAR Simplex Check-in	12	13 0900 Klub Koffee Klatch: Kalmar Family Restaurant CONTEST: CQ-M International DX
14 Mothers Day CONTEST: CQ-M International DX	15	16 1930 SEPAR Net 2000 SARC Net	17	18 1930 SEPAR Simplex Check-in	19	20 0900 Klub Koffee Klatch: Kalmar Family Restaurant SARC Fox Hunt CONTEST: EU PSK DX
21 CONTEST: EU PSK DX	22 Victoria Day	23 1930 SEPAR Net 2000 SARC Net	24 SARC Exec Meeting	25 1930 SEPAR Simplex Check-in	26	27 0900 Klub Koffee Klatch: Kalmar Family Restaurant Hyack Parade CONTEST: CQ WW
28 CONTEST: CQ WW WPX (CW)	29	30 1930 SEPAR Net 2000 SARC Net	31			

May 2017

CLUB EXECUTIVE 2015-2016

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Stan Williams VA7NF

VICE PRESIDENT

Anton James VE7SSD

SECRETARY

Jeremy Morse VE7TMY

TREASURER

Scott Hawrelak VE7HA

DIRECTORS

John Schouten VE7TI
(Communicator Editor)

Sheldon Ward VA7XNL
(Repeater Manager)

Bill Gipps VE7XS

Mike Plant VE7AT

On the Web

ve7sar.net

Between newsletters, watch your e-mail for announcements of events, monthly meetings and training opportunities. These announcements can also be found on our web page, or via:

Twitter

[@ve7sar](https://twitter.com/ve7sar)

FaceBook

[SurreyAmateurRadio](https://www.facebook.com/SurreyAmateurRadio)

Our YouTube Channel

[SurreyARC](https://www.youtube.com/SurreyARC)

SARC Photo Albums

[Web Albums](#)

or

tinyurl.com/SARCphoto



QRT

John Schouten VE7TI

The Origin of Ham

I was asked by one of our current Basic class students about where the term 'Ham' originated. I've probably heard as many theories and myths as anyone but, if you search the Web for the origin of the term "HAM" for radio amateurs, you will find two or three accounts that are believable. The most common, and the one to which I ascribed to for many years was that it referred to 'Ham-fisted (clumsy) CW operators'.

Why radio amateurs are called HAMS (from *Florida Skip Magazine* - 1959)

Have you ever wondered why radio amateurs are called "HAMS?" Well, it goes like this: The word "HAM" as applied to 1908 was the station call of the first amateur wireless stations operated by some amateurs of the Harvard Radio Club. They were Albert S. Hyman, Bob Almy and Poogie Murray.

At first they called their station "HYMAN-ALMY-MURRAY". Tapping out such a long name in code soon became tiresome and called for a revision. They changed it to "HY-AL-MU," using the first two letters of each of their names. Early in 1901 some confusion resulted between signals from amateur wireless station "HYALMU" and a Mexican ship named "HYALMO." They then decided to use only the first letter of each name, and the station call became "HAM."

In the early pioneer days of unregulated radio amateur operators picked their own frequency and call-letters. Then, as now, some amateurs had better signals than commercial stations. The resulting interference came to the attention of congressional committees in Washington and Congress gave much time to proposed legislation designed to critically

limit amateur radio activity. In 1911 ALBERT HYMAN chose the controversial Wireless Regulation Bill as the topic for his Thesis at Harvard. His instructor insisted that a copy be sent to Senator David Walsh, a member of one of the committees hearing the Bill. The Senator was so impressed with the thesis is that he asked Hyman to appear before the committee. Hyman took the stand and described how the little station was built and almost cried when he told the crowded committee room that if the Bill went through that they would have to close down the station because they could not afford the license fees and all the other requirements which the Bill imposed on amateur stations.

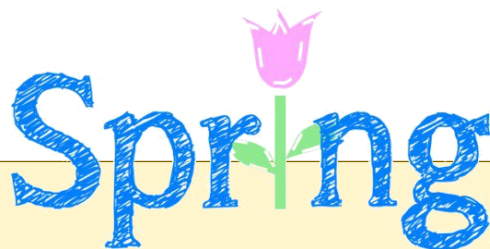
Congressional debate began on the Wireless Regulation Bill and little station "HAM" became the symbol for all the little amateur stations in the country crying to be saved from the menace and greed of the big commercial stations who didn't want them around. The Bill finally got to the floor of Congress and every speaker talked about the "...poor little HAM station." That's how it all started. Nation-wide publicity associated station "HAM" with amateur radio operators. From that day to this, and probably until the end of time in radio an amateur is a "HAM."

Is it true? The facts are difficult to verify. [Wiki](#) calls it a "widely circulated but fanciful tale," and the 1909 Wireless Registry, May edition listed Earl C. Hawkins of Minneapolis, Minnesota, as operating with the callsign "H.A.M." You decide which origin to believe.

73

~ John VE7TI

Communicator Editor



It's May!

At our general meeting on May 10th SARC member Alex Danese will speak about his design and build of an SDR receiver.

We'll also bring you up to date on SARC Field Day planning. Sheldon Ward VE7XNL has taken on the challenge of past years, most recently following John Brodie, Stan Williams and John Schouten placing at or near the top of Field Day rankings. Sheldon has lobbied hard for an outdoor Field Day (last year's was in our new Operational Training Centre) and several members raised their hand at the March meeting to indicate their support—and hopefully help to make it a success. Again this year the focus will not be on competition but on participation and we hope to have a great social as well as a successful radio event. We'll hope for good weather and propagation!

Please attend the meeting and provide your opinions.

SARC hosts an Amateur Radio net each Tuesday evening at 8 PM. Please tune in to the VE7RSC repeater at 147.360 MHz (+600 KHz) Tone=110.9, also accessible on IRLP node 1736 and Echolink node 496228.

On UHF we operate a repeater on 443.775MHz (+5Mhz) Tone=110.9 or IRLP Node 1737.

	SARC Net 20:00 Hrs
1 st Tuesday Standby	Drew VA7DRW Vacant
2 nd Tuesday Standby	Jinty VA7JMR Sheldon VA7XNL
3 rd Tuesday Standby	John Schouten VE7TI Vacant
4 th Tuesday Standby	Kapila VE7KGK John VA7XB
5 th Tuesday Standby	Robert VA7FMR Vacant
Want a turn at Net Control? Contact the SARC Net Manager	

Down The Log...

SARC Monthly Meetings

2nd Wed. (Sept-Jun)
1900 hr at the PREOC
Emergency Mgmt BC
14292 Green Timbers
Way, Surrey, BC

Weekly Club Breakfast

Saturday at 0900 hr
Kalmar Family
Restaurant 8076 King
George Blvd.
Surrey

SARC Net

Tuesday at 2000 hr local
on 147.360 MHz (+)
Tone=110.9

SEPARS Net

Tuesday at 1915 hr local
on 147.360 MHz (+)
Tone=110.9

VE7RSC Repeaters

2m: 147.360MHz+
Tone= 110.9Hz
IRLP node 1736
Echolink node 496228

1.2m: 223.960 Mhz -1.6
Tone=110.9

70cm: 443.775MHz+
Tone= 110.9Hz
IRLP node 1737



We Have A SARC Patch!

These are suitable for sewing on a jacket, cap or your jammies, so you can proudly display your support for the club.

The price is \$4 each or three for \$10 and they can be picked up at a meeting or the weekly Koffee Klatch.

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